

IN THE CLAIMS

1. – 7. (currently cancelled)

8. (currently amended) An apparatus comprising:

a first acoustic resonator on a substrate;

a second acoustic resonator above said first acoustic resonator, said second acoustic resonator vertically separated from said first acoustic resonator such that little or no acoustic energy is coupled between said first acoustic resonator and said second acoustic resonator;

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

a standoff between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator; and

~~The apparatus recited in claim 7 further~~ wherein the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator are electrically connected by the standoff.

9. (currently amended) An apparatus comprising:

a first acoustic resonator on a substrate;

a second acoustic resonator above said first acoustic resonator, said second acoustic resonator vertically separated from said first acoustic resonator such that little or no acoustic energy is coupled between said first acoustic resonator and said second acoustic resonator;

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

a standoff between the top electrode of said first acoustic resonator and the bottom

electrode of said second acoustic resonator; and

~~The apparatus recited in claim 7~~ wherein the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator are at different electrical potential relative to each other thereby creating a capacitive potential between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator.

10. (currently cancelled)

11. (currently amended) An apparatus comprising:

a first acoustic resonator on a substrate;

a second acoustic resonator above said first acoustic resonator, said second acoustic resonator vertically separated from said first acoustic resonator such that little or no acoustic energy is coupled between said first acoustic resonator and said second acoustic resonator;

standoffs separating said first acoustic resonator from said second acoustic resonator; and

~~The apparatus recited in claim 10~~ wherein said standoffs comprise tungsten.

12. – 19. (currently cancelled)

20. (currently amended) An apparatus comprising:

a plurality of resonators fabricated on a substrate, the apparatus including a first acoustic resonator and a second acoustic resonator vertically separated above said first acoustic resonator, said second acoustic resonator acoustically separated from said first acoustic resonator;

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer; and

~~The apparatus recited in claim 19 further comprising~~ a standoff fabricated on the

top electrode of said first acoustic resonator connected to the bottom electrode of said second acoustic resonator.

21. (currently amended) An apparatus comprising:

a plurality of resonators fabricated on a substrate, the apparatus including a first acoustic resonator and a second acoustic resonator vertically separated above said first acoustic resonator, said second acoustic resonator acoustically separated from said first acoustic resonator;

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer; and

~~The apparatus recited in claim 19 further comprising~~ a standoff between the top electrode of said first acoustic resonator and the bottom electrode of said second acoustic resonator.

22. (currently cancelled)

23. (currently amended) An apparatus comprising:

a plurality of resonators fabricated on a substrate, the apparatus including a first acoustic resonator and a second acoustic resonator vertically separated above said first acoustic resonator, said second acoustic resonator acoustically separated from said first acoustic resonator;

wherein said first acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer;

wherein said second acoustic resonator includes a bottom electrode and a top electrode sandwiching a piezoelectric layer; and

~~The apparatus recited in claim 22 wherein said standoffs comprise tungsten.~~

24. – 25. (previously cancelled)